| Index of Claims | Application No.   |
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|                 | 10/677,755        |
|                 | Examiner          |
|                 | Stephen J. Cherry |

Application No.

10/677,755

Examiner

Stephen J. Cherry

Applicant(s)

KATO, KAZUFUMI

Art Unit

2863

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| Cla         | aim      |              |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |                                              | i        | Dat          | е                                                |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |                 |          |        | Cla   | im       |          |           |          | D        | ate       |          |          |                    |          |              | Cla      | aim        |                 |           |           | C        | ate      | )        |               | _            |          |
|-------------|----------|--------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------|----------|--------------|--------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------|----------|--------|-------|----------|----------|-----------|----------|----------|-----------|----------|----------|--------------------|----------|--------------|----------|------------|-----------------|-----------|-----------|----------|----------|----------|---------------|--------------|----------|
|             | -e       | 1200         |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |                                              | П        |              |                                                  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |                 |          |        |       | aí       |          |           |          |          |           |          |          |                    |          |              |          | a          |                 |           |           |          |          |          |               |              |          |
| Final       | Original | y            | 1                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |                                              |          |              |                                                  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |                 |          |        | Final | Original |          |           |          |          |           |          |          |                    |          | '            | Final    | Original   | ŀ               | -         |           |          |          |          |               |              | - 1      |
| iĒ          | Ĕ        | ר''          |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |                                              |          |              |                                                  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |                 |          |        | ίΞ    | Ç        |          |           |          |          |           |          | -        |                    |          | i            | Ī        | Öriğ       |                 |           |           | ļ        |          |          |               |              | - 1      |
|             |          | / +          |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | <u>.                                    </u> | _        | ┖            | Ш                                                | Ш                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |                 | _        |        |       |          |          | _         | _        |          | _         | _        | _        | _                  | _        | L            | _        |            |                 | _         | _         |          | _        | 4        | _             | 4            | _        |
|             | 1 .      | 4            | 1_                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | L_                                           | _        | ╙            | Ш                                                |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |                 | _        |        |       | 51       | Ш        | _         | _        | _        |           | _        | _        | _                  | _        | <u>_</u>     |          | 101        | _               | _         | _         | _        |          | 4        | $\dashv$      | 4            | _        |
|             | 2        | 4            | _                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | _                                            | ļ        | ļ            |                                                  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | $\dashv$        | 4        | 1      |       | 52       | Ш        | _         | _        | _        | _         |          |          | 4                  | 4        | ┡            | _        | 102        | _               | _         | -         |          |          | -        | -             | $\dashv$     | _        |
| <u> </u>    | 3        | Ш            | ╙                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | <u> </u>                                     | ↓_       | <u> </u>     | Ш                                                |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |                 | 4        |        |       | 53       | _        | _         | _        |          |           | _        | _        | -                  | 4        | ┡            |          | 103        | _               | $\dashv$  | -         | _        | -        | 4        | $\dashv$      | $\dashv$     | $\dashv$ |
| <u></u>     | 4        | Щ            | ↓_                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | <b>!</b>                                     |          | ╄            |                                                  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |                 | 4        |        |       | 54       | Ш        | _         | $\dashv$ | -        | _         | -        | -+       | 4                  |          | $\vdash$     |          | 104        | $\Box$          | -         |           |          |          | -        | -             | $\dashv$     | $\dashv$ |
| <b></b>     | 5        | H            | ╀                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | <u> </u>                                     | ₩        | ├-           | ļ                                                |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | $\dashv$        | 4        |        |       | 55       | Н        | $\dashv$  | -        | 1        | -         | +        | +        | +                  | 4        | -            | -        | 105<br>106 | $\dashv$        | $\dashv$  | $\dashv$  | $\dashv$ | $\dashv$ | $\dashv$ | +             | $\dashv$     | $\dashv$ |
|             | 6        | #            | ⊢                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | ├-                                           | ╄        | ╁            | -                                                | _                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | $\vdash$        | $\dashv$ |        |       | 56<br>57 | -        | -         | $\dashv$ |          | $\dashv$  | $\dashv$ | $\dashv$ | +                  |          | $\vdash$     | _        | 107        |                 | -         | $\dashv$  | $\dashv$ | $\dashv$ | $\dashv$ | +             | $\dashv$     | $\dashv$ |
|             | 7        | ⊬            | ⊢                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | -                                            | ├        | ╢            | -                                                |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | $\vdash$        | $\dashv$ |        |       | 58       | Н        | $\dashv$  | $\dashv$ | $\dashv$ | $\dashv$  | $\dashv$ | $\dashv$ | +                  | $\dashv$ | $\vdash$     |          | 108        |                 | $\dashv$  | $\dashv$  | ┥        | $\dashv$ | -        | ┵             | $\dashv$     | -        |
| -           | 8        | #            | +                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | ┼                                            | ⊢        | ╁            | $\vdash$                                         |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | -               | $\dashv$ |        |       | 59       | $\vdash$ |           | $\dashv$ | ┪        | ᅱ         |          | $\dashv$ | +                  | $\dashv$ | $\vdash$     |          | 109        |                 | -         | $\dashv$  | $\dashv$ | $\dashv$ | $\dashv$ | +             | $\dashv$     | $\dashv$ |
| $\vdash$    | 10       | -            | ┼                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | ╁                                            | ⊢        | ╁            | $\vdash$                                         | _                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | -               | -        |        |       | 60       | Н        | -         |          | -        | $\dashv$  | $\dashv$ | $\dashv$ | +                  | ┨.       | $\vdash$     | -        | 110        | Н               |           | $\dashv$  | ┪        | $\dashv$ | $\dashv$ | -             | $\dashv$     | $\dashv$ |
| $\vdash$    | 11       | 1            | ╁                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | $\vdash$                                     | ╀        | +            | $\vdash$                                         | $\vdash$                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | $\vdash$        | $\dashv$ |        |       | 61       | H        | $\dashv$  | $\dashv$ |          | $\dashv$  | $\dashv$ | $\dashv$ | +                  | $\dashv$ | +            |          | 111        | Н               | $\vdash$  | $\dashv$  | -        |          | $\dashv$ | $\dashv$      | $\dashv$     | $\dashv$ |
| -           | 12       | $\mathbf{H}$ | +                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | +-                                           | +-       | +-           | $\vdash$                                         | $\vdash$                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | $\vdash$        | $\dashv$ |        |       | 62       | H        | $\vdash$  |          | $\dashv$ | ᅱ         | +        | +        | +                  | $\dashv$ | $\vdash$     |          | 112        | $\vdash$        | $\dashv$  | $\dashv$  | $\dashv$ | $\dashv$ | +        | 十             | $\dashv$     | $\dashv$ |
| <del></del> | 13       | 1            | +                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | +                                            | +-       |              | Н                                                | $\vdash$                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | $\vdash$        | $\dashv$ |        | -     | 63       | H        |           |          | $\dashv$ | -         | $\dashv$ | $\dashv$ | $\dashv$           | $\dashv$ | H            | $\dashv$ | 113        | $\vdash$        | $\dashv$  | $\dashv$  | $\dashv$ |          | $\dashv$ | $\dashv$      | $\dashv$     | $\dashv$ |
|             | 14       | ╫            | +                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | 1-                                           | t        | t            |                                                  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | $\vdash$        | $\dashv$ | 4      |       | 64       | Н        |           | $\dashv$ | ᅥ        | $\dashv$  | $\dashv$ | $\dashv$ | $\dashv$           | $\dashv$ |              | $\neg$   | 114        | Н               |           | _         | -        | 一        | $\dashv$ | $\dashv$      | $\dashv$     | $\neg$   |
| <b> </b>    | 15       | ١            | T                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | $\vdash$                                     | $t^{-}$  | t            |                                                  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | H               |          |        |       | 65       | П        | $\dashv$  |          |          | _         | _        | $\dashv$ | $\dashv$           | $\dashv$ |              |          | 114<br>115 |                 |           | T         |          | $\dashv$ | 寸        | $\neg$        | $\neg$       |          |
| <b></b>     | 16       | 1            | t                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | Т                                            | 1        | 1            | П                                                |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |                 | $\neg$   |        |       | 66       | П        | $\Box$    | $\neg$   | 一        |           | $\dashv$ | 寸        | 寸                  | $\dashv$ | Γ            | $\neg$   | 116        |                 |           |           |          | 寸        | 寸        | $\dashv$      | 7            |          |
|             | 17       | 1            | 1                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | T                                            | 1        |              | П                                                | $\vdash$                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | П               | _        |        |       | 67       | П        | $\Box$    |          |          |           | $\neg$   | T        | 十                  |          |              |          | 117        | П               |           | $\neg$    |          |          |          | o             |              |          |
|             | 18       | 1            | t                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | 1                                            | T        |              |                                                  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | П               |          | 1.     |       | 68       |          |           |          | コ        | $\exists$ |          |          | T                  |          |              |          | 118        |                 |           |           |          |          |          |               | $\neg$       |          |
|             | 19       | 1            |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | Π                                            | T        |              |                                                  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |                 |          | \$ < , |       | 69       |          |           |          |          |           | $\Box$   | T        |                    | 1        |              |          | 119        |                 |           |           |          |          |          | $\Box$        | $\exists$    |          |
|             | 20       | 7            | +                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | Π                                            | 1        | 1            |                                                  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |                 |          |        |       | 70       |          |           |          |          |           |          |          |                    |          |              |          | 120        |                 |           |           |          |          |          |               | $\Box$       | $\Box$   |
|             | 21       | _            | 1                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |                                              | Т        |              |                                                  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |                 |          | :      |       | 71       |          |           |          |          |           |          |          |                    |          |              |          | 121        |                 |           |           |          |          |          | $\Box$        |              |          |
|             | 22       |              |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |                                              | Π        |              |                                                  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |                 |          | 1      |       | 72       |          |           |          |          |           |          |          |                    |          |              |          | 122        |                 |           |           |          |          |          |               |              |          |
|             | 23       |              |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |                                              |          |              |                                                  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |                 |          | -,     |       | 73       |          |           |          |          |           |          |          |                    |          |              |          | 123        |                 |           |           |          |          |          |               |              | _        |
|             | 24       |              |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | I                                            |          |              |                                                  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |                 |          |        |       | 74       |          |           |          |          |           |          |          |                    |          | L            |          | 124        |                 | Ш         |           |          |          |          | _             | _            |          |
|             | 25       |              |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | <u> </u>                                     |          |              |                                                  | $ldsymbol{ldsymbol{ldsymbol{ldsymbol{ldsymbol{ldsymbol{ldsymbol{ldsymbol{ldsymbol{ldsymbol{ldsymbol{ldsymbol{ldsymbol{ldsymbol{ldsymbol{ldsymbol{ldsymbol{ldsymbol{ldsymbol{ldsymbol{ldsymbol{ldsymbol{ldsymbol{ldsymbol{ldsymbol{ldsymbol{ldsymbol{ldsymbol{ldsymbol{ldsymbol{ldsymbol{ldsymbol{ldsymbol{ldsymbol{ldsymbol{ldsymbol{ldsymbol{ldsymbol{ldsymbol{ldsymbol{ldsymbol{ldsymbol{ldsymbol{ldsymbol{ldsymbol{ldsymbol{ldsymbol{ldsymbol{ldsymbol{ldsymbol{ldsymbol{ldsymbol{ldsymbol{ldsymbol{ldsymbol{ldsymbol{ldsymbol{ldsymbol{ldsymbol{ldsymbol{ldsymbol{ldsymbol{ldsymbol{ldsymbol{ldsymbol{ldsymbol{ldsymbol{ldsymbol{ldsymbol{ldsymbol{ldsymbol{ldsymbol{ldsymbol{ldsymbol{ldsymbol{ldsymbol{ldsymbol{ldsymbol{ldsymbol{ldsymbol{ldsymbol{ldsymbol{ldsymbol{ldsymbol{ldsymbol{ldsymbol{ldsymbol{ldsymbol{ldsymbol{ldsymbol{ldsymbol{ldsymbol{ldsymbol{ldsymbol{ldsymbol{ldsymbol{ldsymbol{ldsymbol{ld}}}}}}$ | Ш               |          |        |       | 75       |          |           |          | _        |           |          | _        | $\perp$            | _        | $\perp$      |          | 125        |                 | Ц         |           | _        | $\dashv$ | _        | _             | 4            | _        |
|             | 26       | L            | $oldsymbol{oldsymbol{oldsymbol{oldsymbol{oldsymbol{oldsymbol{oldsymbol{oldsymbol{oldsymbol{oldsymbol{oldsymbol{oldsymbol{oldsymbol{oldsymbol{oldsymbol{oldsymbol{oldsymbol{oldsymbol{oldsymbol{oldsymbol{oldsymbol{oldsymbol{oldsymbol{oldsymbol{oldsymbol{oldsymbol{oldsymbol{oldsymbol{oldsymbol{oldsymbol{oldsymbol{oldsymbol{oldsymbol{oldsymbol{oldsymbol{oldsymbol{oldsymbol{oldsymbol{oldsymbol{oldsymbol{oldsymbol{oldsymbol{oldsymbol{oldsymbol{oldsymbol{oldsymbol{oldsymbol{oldsymbol{oldsymbol{oldsymbol{oldsymbol{oldsymbol{oldsymbol{oldsymbol{oldsymbol{oldsymbol{oldsymbol{oldsymbol{oldsymbol{oldsymbol{oldsymbol{oldsymbol{oldsymbol{oldsymbol{oldsymbol{oldsymbol{oldsymbol{oldsymbol{oldsymbol{oldsymbol{oldsymbol{oldsymbol{oldsymbol{oldsymbol{oldsymbol{oldsymbol{oldsymbol{oldsymbol{oldsymbol{oldsymbol{oldsymbol{oldsymbol{oldsymbol{oldsymbol{oldsymbol{oldsymbol{oldsymbol{oldsymbol{oldsymbol{oldsymbol{oldsymbol{oldsymbol{oldsymbol{oldsymbol{oldsymbol{oldsymbol{oldsymbol{oldsymbol{oldsymbol{oldsymbol{oldsymbol{oldsymbol{oldsymbol{oldsymbol{oldsymbol{oldsymbol{oldsymbol{oldsymbol{oldsymbol{oldsymbol{oldsymbol{oldsymbol{oldsymbol{oldsymbol{oldsymbol{oldsymbol{oldsymbol{oldsymbol{oldsymbol{oldsymbol{oldsymbol{oldsymbol{oldsymbol{oldsymbol{oldsymbol{oldsymbol{oldsymbol{oldsymbol{oldsymbol{oldsymbol{oldsymbol{oldsymbol{oldsymbol{oldsymbol{oldsymbol{oldsymbol{oldsymbol{oldsymbol{oldsymbol{oldsymbol{oldsymbol{oldsymbol{oldsymbol{oldsymbol{oldsymbol{oldsymbol{oldsymbol{oldsymbol{oldsymbol{oldsymbol{oldsymbol{oldsymbol{oldsymbol{ol}}}}}}}}}}}}}}}}}$ | ┖                                            |          | ļ            |                                                  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | Щ               |          |        |       | 76       |          | $\Box$    |          | _        | _         | _        | $\perp$  | _                  | _ `      |              |          | 126        |                 |           |           | _        | _        | _        | _             | _            | _        |
|             | 27       |              |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | ↓_                                           | <u> </u> |              |                                                  | L                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | Ш               |          |        |       | 77       |          |           |          | _        | _         |          | _        | _                  | _        | : _          |          | 127        | Ш               | $\Box$    | _         | _        | _        | 4        | _             | 4            | $\dashv$ |
|             | 28       | <u> </u>     | ļ                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | ╙                                            | ┖        | ļ            | <u> </u>                                         | _                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |                 | _        |        |       | 78       |          | $\dashv$  |          | _        | $\dashv$  |          | 4        | _                  | _   •    | <u>.</u>     | _        | 128        | _               | _         | _         |          | _        |          | $\dashv$      | $\dashv$     | 4        |
|             | 29       | _            | <u> </u>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | <u> </u>                                     | ╙        | ļ            | _                                                | _                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | Ш               | _        |        |       | 79       |          | -         | _        | _        |           | -        | 4        | +                  | 4        | -            |          | 129        | Ш               | $\dashv$  | $\dashv$  | -        | $\dashv$ | $\dashv$ | $\dashv$      | $\dashv$     |          |
|             | 30       | L            | ↓                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | 1-                                           | ↓        | <b>-</b>     | ┡                                                | L                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | $\vdash \vdash$ | _        |        |       | 80       |          | -         |          |          | -         |          | $\dashv$ | +                  | -        | t            |          | 130        |                 | $\dashv$  |           | _        | $\dashv$ | -        | -             | -            | _        |
|             | 31       | L            | <u> </u>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | -                                            | ├-       | <u> </u>     | ⊢                                                | _                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | $\vdash$        | _        |        |       | 81       |          | $\dashv$  | -        | $\dashv$ |           | -        | -        | -+                 |          | -            | $\dashv$ | 131        |                 |           | $\dashv$  |          | $\dashv$ | $\dashv$ | $\dashv$      | $\dashv$     | -        |
|             | 32       | $\vdash$     | ₩                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | <del> </del>                                 | ┼        | +-           | ├-                                               | $\vdash$                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | $\vdash$        | -        |        |       | 82       | $\vdash$ | $\vdash$  |          | -        | -         | $\dashv$ | +        | +                  | $\dashv$ | -            | $\dashv$ | 132<br>133 | -               | $\dashv$  |           | $\dashv$ | $\dashv$ | $\dashv$ | $\dashv$      | $\dashv$     | -        |
| <u> </u>    | 33       | $\vdash$     | +                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | ┼                                            | +-       | +            | $\vdash$                                         | $\vdash$                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | $\vdash$        |          | 2 4    |       | 83<br>84 |          | $\vdash$  |          |          |           | -+       | $\dashv$ | +                  | $\dashv$ | $\vdash$     |          | 134        | $\vdash$        | $\vdash$  |           | $\dashv$ | $\dashv$ | $\dashv$ | $\dashv$      | $\dashv$     | -        |
| -           | 35       | $\vdash$     | +                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | +                                            | $\vdash$ | <del> </del> | ├-                                               | $\vdash$                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | $\vdash$        | $\dashv$ |        |       | 85       |          | $\dashv$  |          |          | $\dashv$  | $\dashv$ | $\dashv$ | $\dashv$           | $\dashv$ |              |          | 135        | H               | $\dashv$  | +         | -        |          | $\dashv$ | -             | $\dashv$     | -        |
| -           | 36       | $\vdash$     | +                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | +                                            | +        | <del> </del> |                                                  | $\vdash$                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | H               | $\dashv$ | Ė      |       | 86       | -        | $\dashv$  |          |          | -         | $\dashv$ | $\dashv$ | ┰                  | -        | $\vdash$     |          | 136        | H               | $\vdash$  | $\dashv$  | -        | $\dashv$ | +        | 十             | $\dashv$     | -        |
| -           | 37       | $\vdash$     | ╁                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | +                                            | +        | +-           | +-                                               | $\vdash$                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | $\vdash$        | -        |        |       | 87       | -        | $\vdash$  | -        | $\dashv$ | $\dashv$  | $\dashv$ | $\dashv$ | $\dashv$           | -        | -            |          | 137        | H               | $\vdash$  | $\dashv$  | -        | -        | $\dashv$ | +             | $\dashv$     | -        |
| $\vdash$    | 38       | $\vdash$     | +                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | +                                            | +        | +            | $\vdash$                                         | $\vdash$                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | -               | -        |        |       | 88       |          | $\vdash$  |          | $\dashv$ | $\dashv$  | +        | $\dashv$ | $\dashv$           | $\dashv$ | -            | _        | 138        | $\vdash \vdash$ | $\vdash$  | -         | -        | $\dashv$ | $\dashv$ | $\dashv$      | $\dashv$     | _        |
| -           | 39       | $\vdash$     | t                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | +-                                           | +        | +            | $\vdash$                                         | $\vdash$                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | $\vdash$        | $\dashv$ |        | ·     | 89       |          | $\vdash$  |          |          |           | +        | $\dashv$ | $\dashv$           | $\dashv$ | $\vdash$     | $\neg$   | 139        | Н               | $\vdash$  | $\dashv$  |          | $\dashv$ | 十        | $\dashv$      | $\dashv$     | -        |
| <b>—</b>    | 40       |              | 1                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | 1                                            | 1        | $t^-$        | $\vdash$                                         |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | H               |          |        |       | 90       |          | $\Box$    | 1        | $\dashv$ | 一         | $\dashv$ | $\dashv$ | 十                  | $\dashv$ | $\vdash$     |          | 140        | П               | $\vdash$  | $\dashv$  |          | $\neg$   | 寸        | $\dashv$      | $\dashv$     | $\neg$   |
|             | 41       | $\vdash$     | T                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | T                                            | T        | $T^{-}$      | <del>                                     </del> |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | П               |          |        |       | 91       |          | $\Box$    |          |          | $\neg$    | $\dashv$ | $\dashv$ | $\neg$             | 7        |              |          | 141        | П               |           | $\exists$ |          |          | 7        | $\dashv$      | $\dashv$     | $\neg$   |
|             | 42       | $\vdash$     | T                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | $\vdash$                                     | 1        | Ì            |                                                  | П                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |                 |          |        |       | 92       |          |           | 1        |          | $\dashv$  | 7        | $\dashv$ | $\neg \uparrow$    | Д,       | Г            |          | 142        | П               | $\Box$    | 寸         |          |          |          | $\exists$     | ╗            |          |
|             | 43       |              |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |                                              |          |              |                                                  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |                 |          |        |       | 93       |          |           |          |          |           |          |          |                    |          |              |          | 143        |                 |           |           |          |          |          | $\Box$        | $\Box$       |          |
|             | 44       |              |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |                                              |          |              |                                                  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |                 |          |        |       | 94       |          |           |          |          |           |          |          |                    |          |              |          | 144        |                 |           |           |          |          |          | $\Box$        | $\Box$       |          |
|             | 45       |              |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | Γ                                            |          |              |                                                  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |                 |          |        |       | 95       |          |           |          |          |           |          |          |                    |          | $\mathbb{L}$ |          | 145        |                 |           |           |          |          |          | $\Box$        | $oxed{\int}$ |          |
|             | 46       |              |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |                                              |          |              |                                                  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |                 |          | . 1    |       | 96       |          |           |          |          |           |          | $\Box$   | $oldsymbol{\perp}$ |          | Ĺ            |          | 146        |                 |           |           |          | $\Box$   | $\Box$   | $\bot$        | $\prod$      |          |
|             | 47       |              |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |                                              |          |              |                                                  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |                 |          |        |       | 97       |          |           |          |          |           | $\perp$  | $\Box$   | $\perp$            | $\Box$   | L            |          | 147        |                 |           | $\bot$    |          |          |          | ightharpoonup |              |          |
|             | 48       |              |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |                                              | <u> </u> |              | <u> </u>                                         |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |                 |          | .:. ]  |       | 98       | Щ        |           |          | [        | _         | _        |          |                    | _        | L            |          | 148        | Щ               | $\Box$    | $\perp$   | _        |          | $\dashv$ | $\dashv$      | $\dashv$     | _        |
|             | 49       | Ĺ            | $\perp$                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |                                              | L        | _            | <u> </u>                                         | Ш                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | $\sqcup$        | _        | ٠. ا   |       | 99       | <u> </u> | $\square$ | _        | _        |           | _        | ļ        | 4                  | _        | L            |          | 149        | $\perp$         | $\square$ |           | _        |          | _        | $\dashv$      | 4            |          |
| <u></u>     | 50       | L            | <u>L</u> .                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | <u>L_</u>                                    | 1_       |              |                                                  | L                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |                 |          | .      | L     | 100      |          |           |          |          |           |          |          | $\perp$            |          | L            |          | 150        | Ш               | لـــــا   |           |          |          | $\perp$  | $\perp$       | $\perp$      |          |